



# CHIHUAHUAN DESERT ECOREGION

*Rare species thrive in the vast high desert  
spanning both sides of the U.S.-Mexico border*

## conservation profile

### Conserving Mexico's Cuatro Ciénegas Valley

Hundreds of freshwater pools, desert gardens, white gypsum dunes and limestone mountains exist a mere 200 miles from Laredo, Texas, in Mexico's Cuatro Ciénegas Valley.

At El Tokio, within the million-acre expanse of grasslands known as Llano la Soledad (The Valley of Solitude), only 25 miles from Saltillo in Coahuila, the Conservancy and Pronatura Noreste are committed to conserving 100,000 acres of the most biologically important land. A new 40,000-acre state park protects important arid grassland bird and Mexican prairie dog habitat in La Soledad region.

With the Conservancy's assistance, Pronatura Noreste purchased the 7,000-acre Rancho Pozas Azules (Ranch of the Blue Pools), which harbors more than 70 desert springs. It was the largest private-land conservation purchase in Mexico's history.

While significant parts of the Chihuahuan Desert are protected, conserving this stunningly scenic and abundant natural resource ultimately will depend on partnerships between private landowners, communities and government agencies.



Davis Mountains (© Larry Gilbert)

A vast sea of desert punctuated with isolated “sky island” mountains stretches across 230,000 square miles from West Texas to Arizona and south almost to Mexico City. Nearly ringed by massive mountain ranges and nourished by precious springs, this high desert and its mountain islands abound with rare plants, large mammals and fish, relics from an earlier era. The Chihuahuan Desert is the largest North American desert and the most biologically diverse in the Western Hemisphere.

Separated from other nearby arid

regions by the high mountains of the Sierra Madre in Mexico, the southern Rockies and the Arizona-New Mexico “sky islands” in the United States, its isolation has produced a region rich in species found nowhere else on Earth – a wild and beautiful natural treasure.

The Chihuahuan Desert Ecoregion spans the Trans-Pecos area of Texas, large parts of southern New Mexico, a slice of Arizona and large portions of the Mexican states of Chihuahua, Coahuila, Durango, Zacatecas, San Luis Potosi and Nuevo Leon. Wetter



Independence Creek (© Lynn McBride)

than many North American deserts, it has intermittent summer monsoon rains and a 10-inch annual average rainfall. The region ranges in elevation from 3,000 to mountain ranges rising above 10,000 feet

As recently as 9,000 years ago, this desert was considerably wetter, dominated by woodlands of piñon pine and juniper. Increasing aridity has contributed to biological isolation and endemism, where species in unique habitat pockets adapt independently.

Scientists believe at least 1,000 plant species are unique to the Chihuahuan Desert. More than 400 species of cactus are endemic here. Large, intact grasslands provide important habitat, as do areas of chaparral, savanna, woodlands and forests in the mountains and narrow ribbons of forest along streams and springs.

Scientists with The Nature Conservancy, Pronatura Noreste (the Conservancy's counterpart in northeast Mexico) and the World Wildlife Fund recently completed an ecoregional assessment of the Chihuahuan Desert. The scientists listed 120 species of mammals –

including black bears, mountain lions, pronghorns and wolves – 300 species of birds, and 170 species of amphibians and reptiles. Several vertebrates endemic to the Chihuahuan Desert occur in very unique springs, short creeks or on mountain-tops.

Grasslands provide wintering grounds for a large proportion of Great Plains birds, many with declining populations, such as mountain plovers, ferruginous hawks and Baird's sparrows. The region also is home to the largest remaining black-tailed prairie dog towns and the only populations of the endemic Mexican prairie dog. Nearly half of the region's fish species are endemic to this desert, and many are at risk or declining.

For several centuries, domestic livestock have grazed the desert. Outside of the large cities, ranching still dominates the landscape. Since the mid-1880s, agricultural demand on the land has increased, and over-exploitation of rangelands threatens the health of native plants and animals.

Pressures on the desert's springs, aquifers, streams and rare rivers from agricultural and other human use also raise threats to these fragile desert resources. Most of the ecoregion in Texas and Mexico remains in private ownership. Through multiple conservation projects, several vast natural resource areas are being protected.

In Texas, the Conservancy is protecting this desert, its sky islands and springs at the 32,000-acre Davis Mountains Preserve and nearby Sandia Springs Preserve in far West Texas; the 20,000-acre Independence Creek Preserve in Terrell County; the 4,000-acre Diamond Y Spring Preserve in Pecos County; and the 4,500-acre Dolan Falls Preserve on the Devils River at a biological junction of the Chihuahuan Desert, Edwards Plateau and Tamaulipan Thornscrub. Working in partnership with private landowners, the Conservancy also is conserving thousands of acres in the Davis Mountains; the Chinati Mountains; on the lower Pecos River; and along the Devils River.

Conservation-buyer programs, in which land is purchased and re-sold with permanent development restrictions, are an important habitat-protection tool in Texas. Recent purchases by the Conservancy of 87,000 acres on the Devils River and a 16,000-acre tract in the Marfa Grasslands in the Trans-Pecos were sold to conservation buyers.

### contact information

The Nature Conservancy's Texas and Mexico programs  
P.O. Box 1440  
San Antonio, Texas 78295  
tel (210) 224-8774  
fax (210) 228-9805

[nature.org/texas](http://nature.org/texas) and [nature.org/mexico](http://nature.org/mexico)